



Indiana
Department
of
Health

Indiana Linked Birth and Death Data, 2014-2018

Maternal and Child Health
Epidemiology

June 2021

OUR MISSION:

**To promote, protect, and improve
the health and safety of all Hoosiers.**

OUR VISION:

**Every Hoosier reaches optimal health
regardless of where they live, learn,
work, or play.**



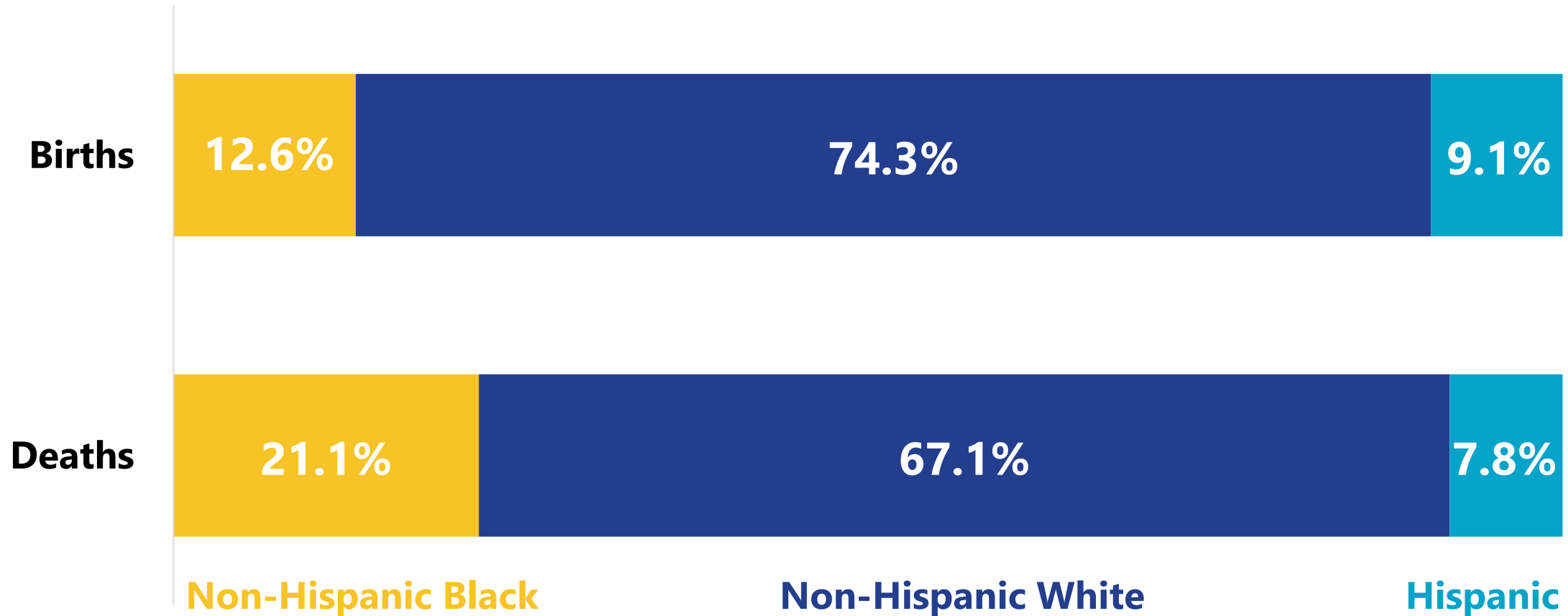
Data Description

- Based on Indiana births that were linked to Indiana infant death records.
- 2014-2018 describes the infant birth year.
- The infant death year spans 2014-2019.
- Gives us the ability to analyze the relationships between risk factors and infant mortality rather than the two pieces independently.
- The data points in this presentation should not be compared to other materials and statistics based on only birth or death records.

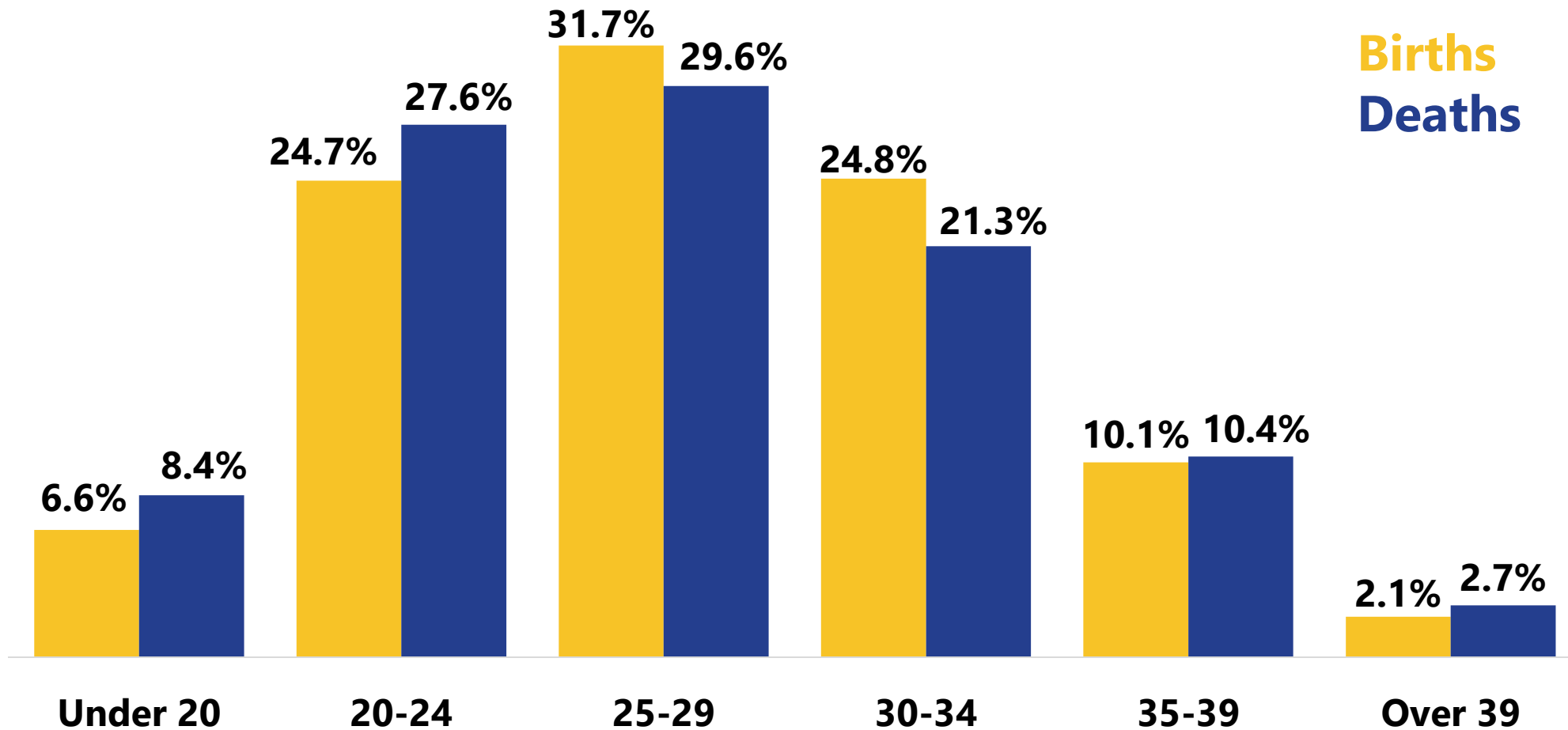
Limitations

- Not all Indiana infant death records were linked with a birth record.
 - This means that the infant mortality rates provided based on this analysis might be an underestimate of the true rates for Indiana.
- 2,758 records were matched ~ 92.1%.
- Matching varies by cause of death, all causes matched between 90% and 96%.
- Race and ethnicity may differ on birth and death records. We use data from the birth certificate to match the CDC's method.
 - This means that race/ethnicity infant mortality rates may differ when compared to annual reports.

Indiana Linked Births and Infant Deaths by Race and Ethnicity



Indiana Linked Births and Infant Deaths by Age of Mom





Birth Outcome Indicators

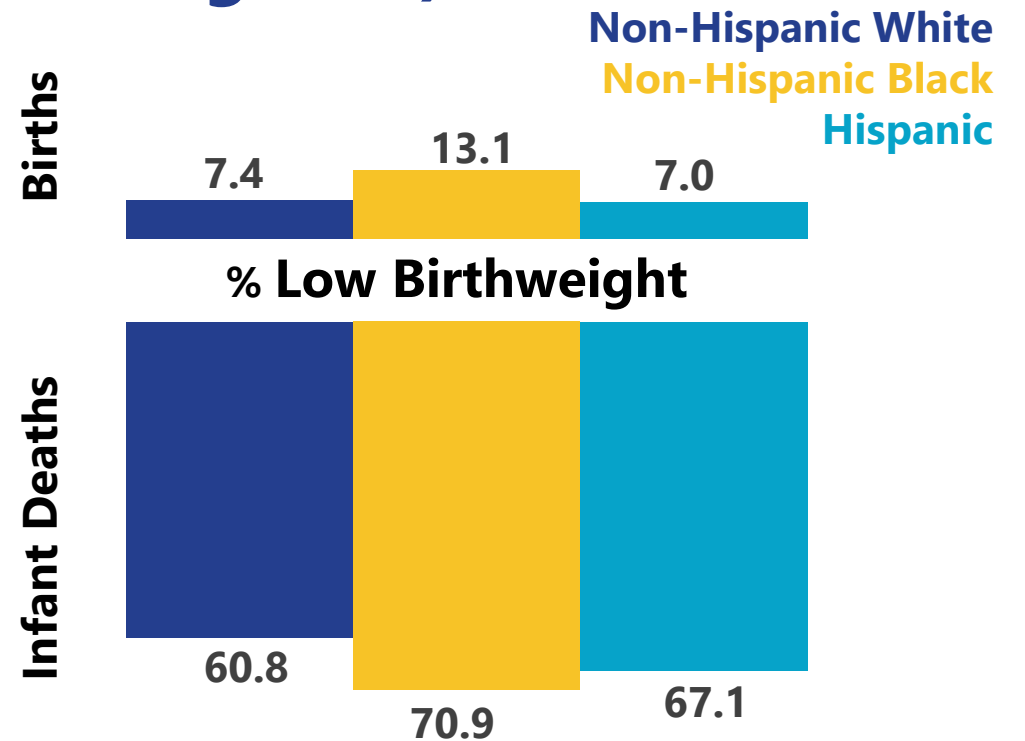
Low Birthweight

63.7%

of infants who died had a low birthweight (< 2,500 grams)

Over 5%

of low birthweight births resulted in an infant death



Comparisons should not be made to unlinked data sources.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [June 1, 2021]

Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics

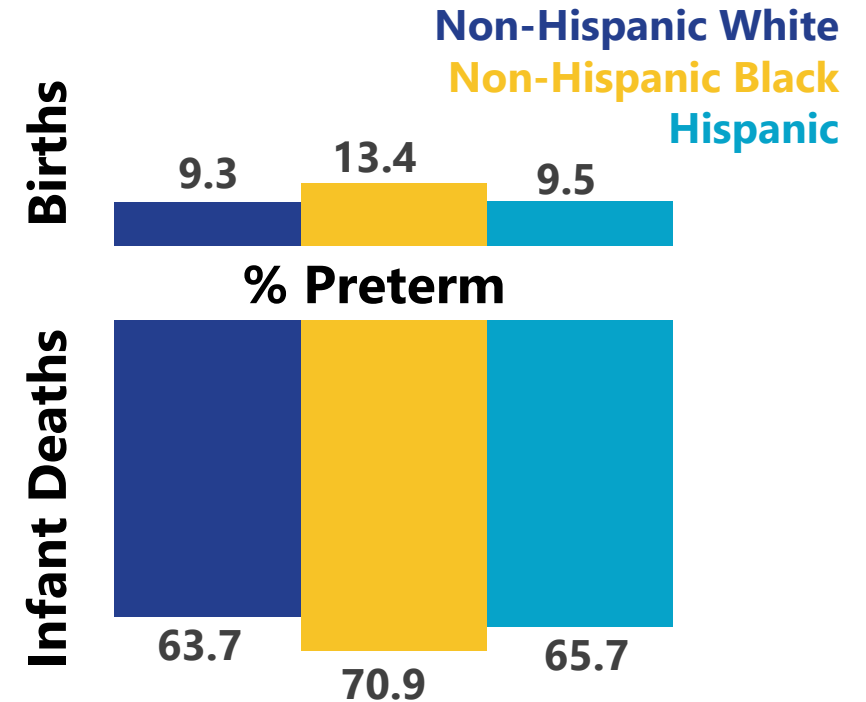
Preterm

65.5%

**of infants who died were born
preterm (< 37 weeks gestation)**

Over 4%

**of preterm births
resulted in an infant
death**



Comparisons should not be made to unlinked data sources.

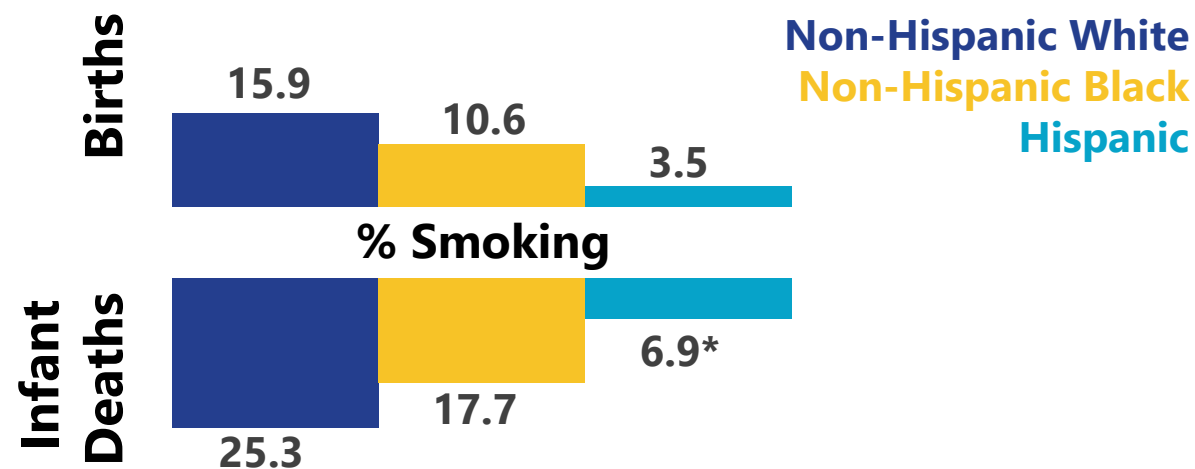
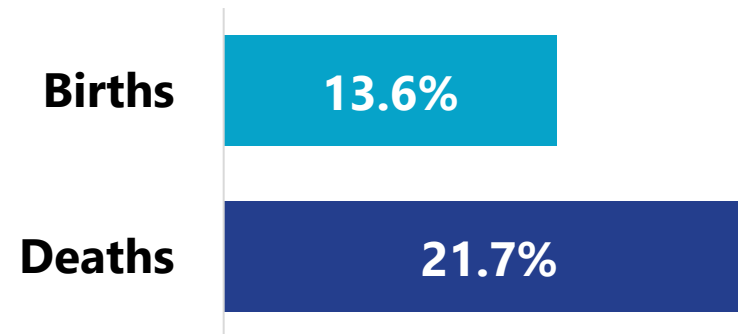
Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [June 1, 2021]

Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics

Smoking During Pregnancy

21.7%

of the infants who died were born to a mom who reported smoking during pregnancy



* Percentages based on counts less than 20 are unstable and should be interpreted with caution.

Comparisons should not be made to unlinked data sources.

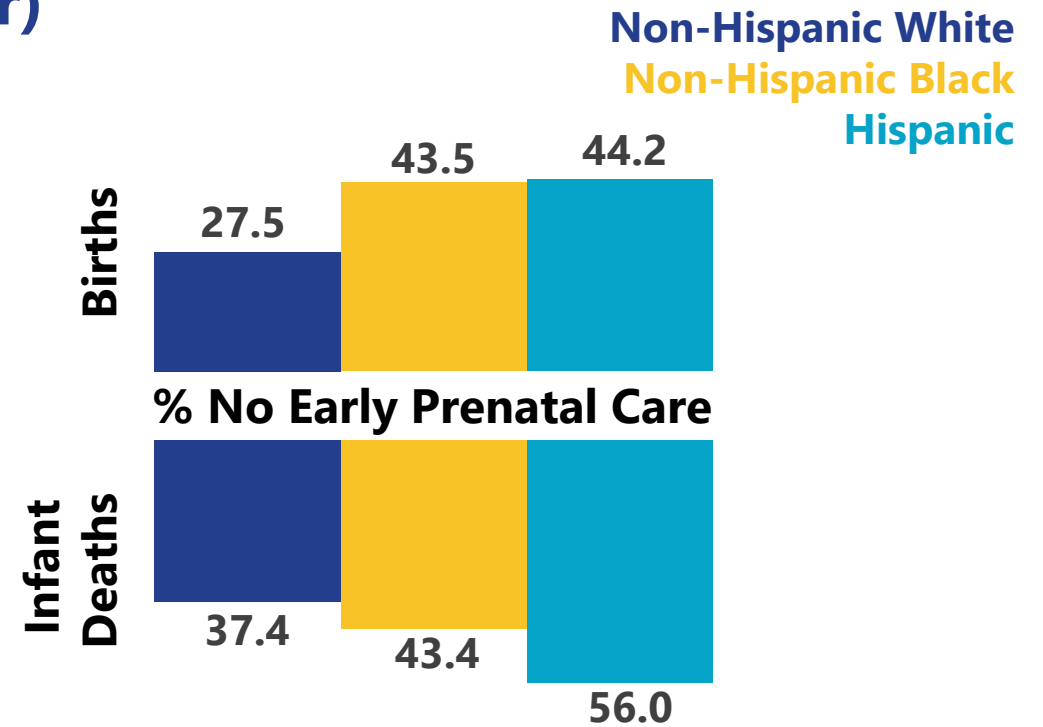
Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [May 17, 2021]

Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics

Early Prenatal Care

2 out of every 5

infants who died received **no early prenatal care (1st trimester)**



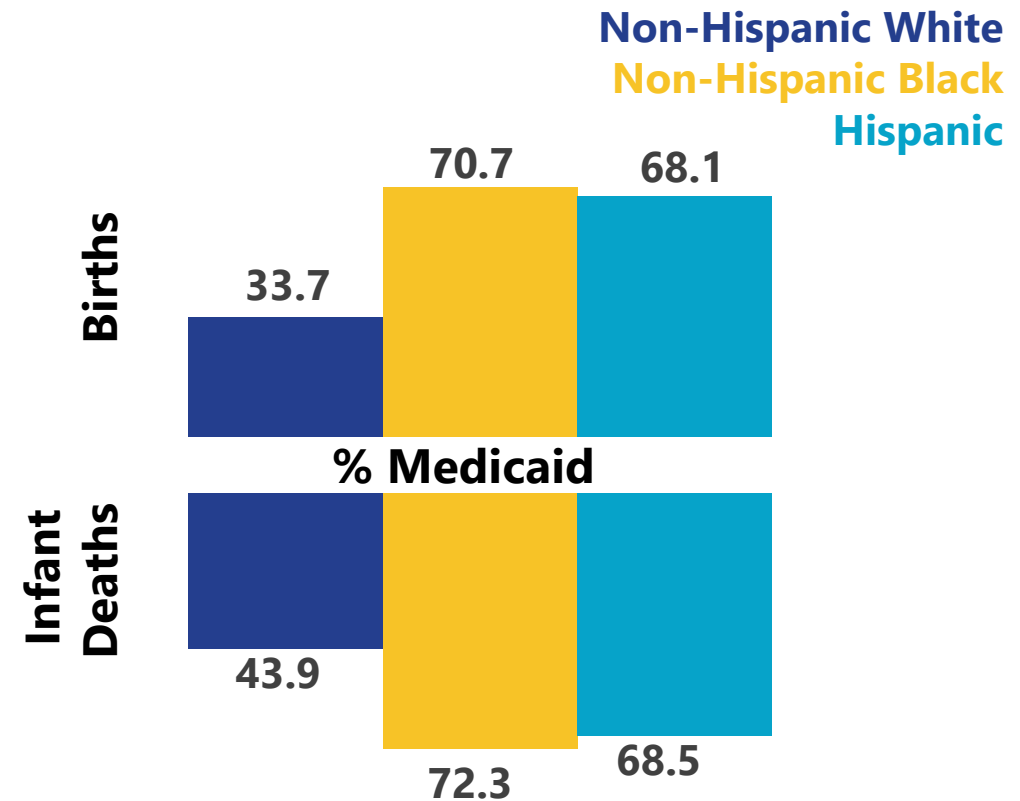
Comparisons should not be made to unlinked data sources.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [May 11, 2021]

Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics

Medicaid

51.9% of infants who died were born to a mother on **Medicaid**



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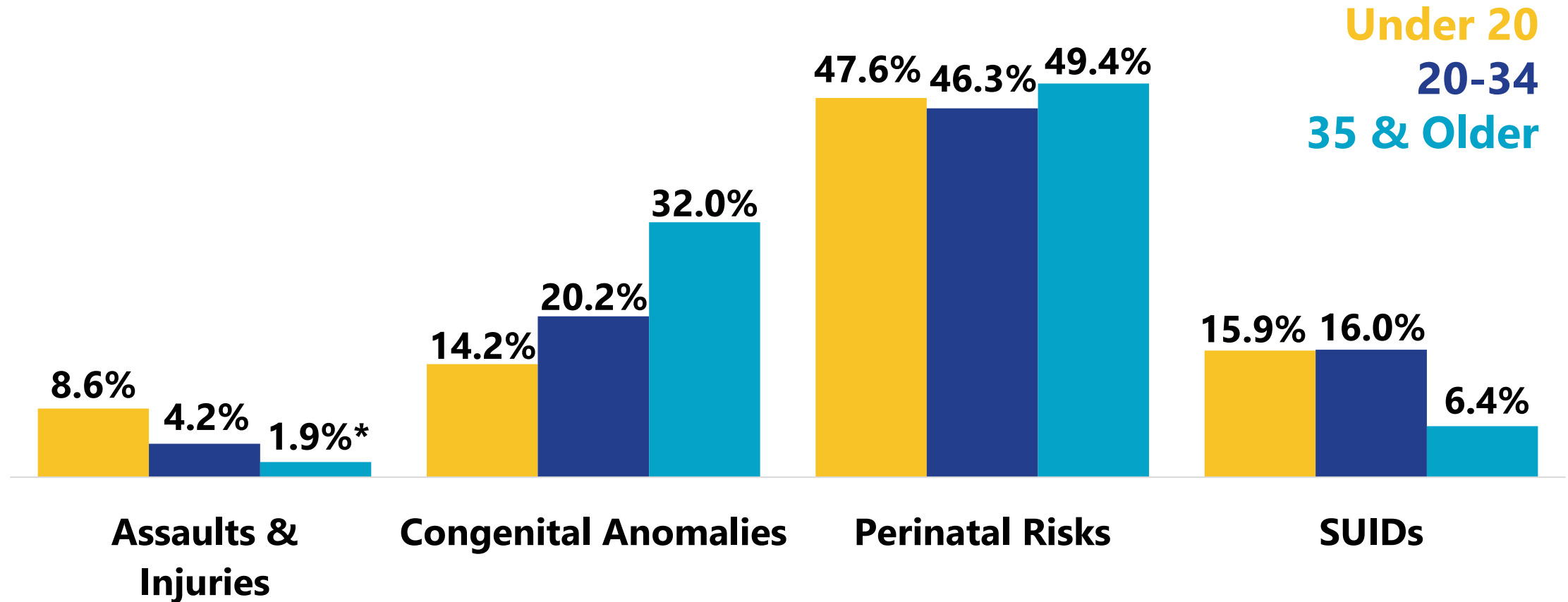
Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [May 11, 2021]

Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics



Causes of Infant Death in Indiana, 2014-2019

Cause of Death by Age of Mom

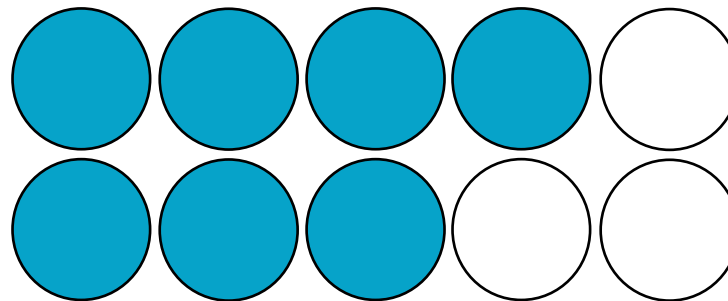


Assaults & Injuries

2.6x greater risk of infant death due to **assaults or injuries** when mothers are **age 19 or younger**

72.0%

of infant deaths from **assaults or injuries** were babies born to mothers on **Medicaid**

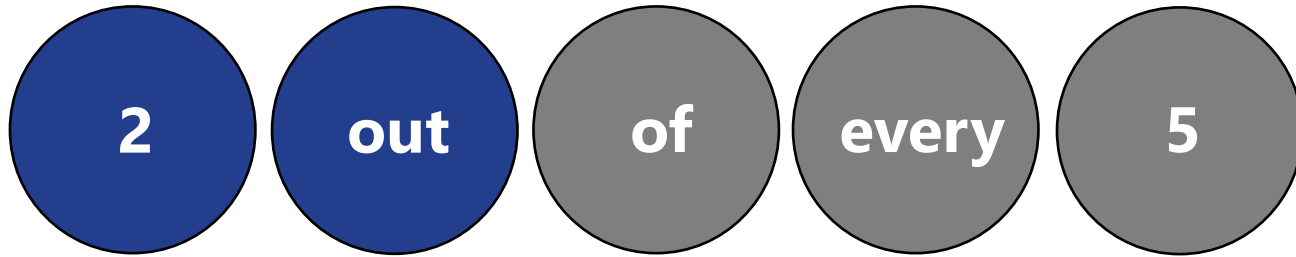


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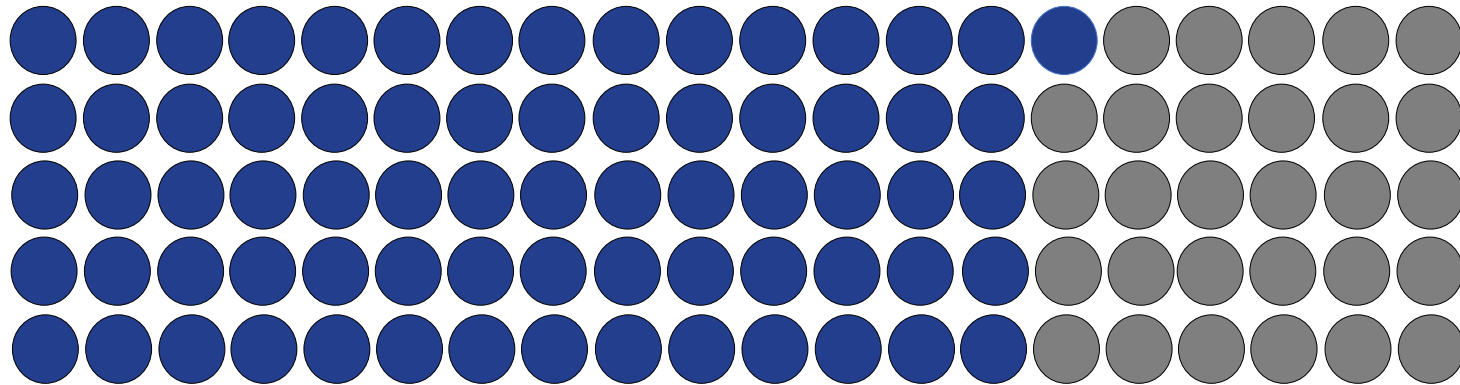
Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [May 17, 2021]

Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics

Sudden Unexpected Infant Deaths (SUIDs)

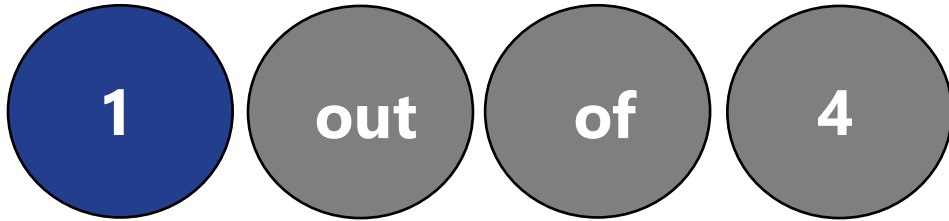


SUIDs were linked to a mother who reported **smoking** during pregnancy



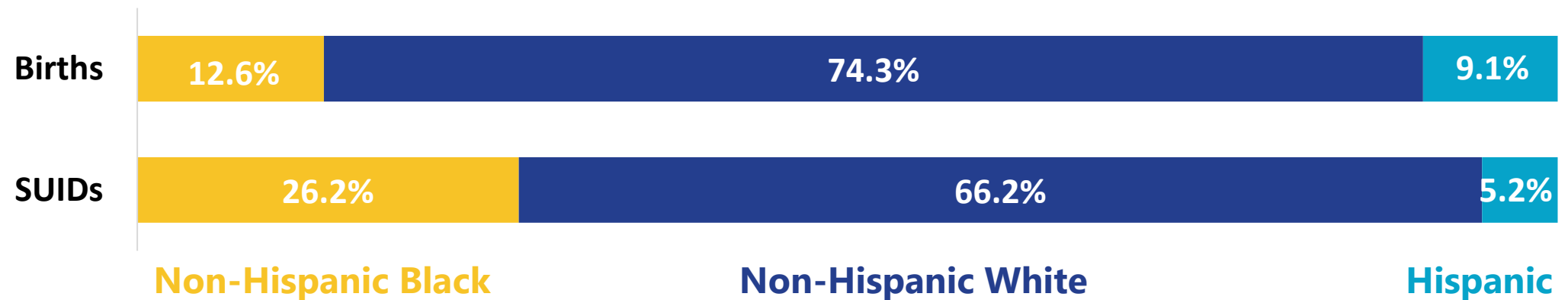
70.9% of all SUIDs were babies born to mothers on Medicaid

Preterm or Low Birthweight Births and SUIDs



24.4% of SUIDs were linked to a baby who was born **preterm or low birthweight**

Births and SUIDs by Race and Ethnicity



Comparisons should not be made to unlinked data sources.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [June 10, 2021]

Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics

Summary

- Linked data allows us to analyze the relationships between risk factors and infant mortality rather than the two pieces independently.
- Most Indiana infant deaths were either premature or low birthweight babies.
- Smoking and no early prenatal care during pregnancy are linked to higher percentages of infant death.
- Trends exist between cause of infant death and the age of mom.
- Large disparities exist in indicators and outcomes.

Questions?

Division of Maternal and Child Health

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